Chapter 2 - Determining which regulations apply to your shop

Some regulations apply to you regardless of the activities conducted at your shop. Other regulations are dependent upon factors such as: the number of people employed by your shop, the type of work your shop performs, and the wastes materials that are generated.

It is important that you determine which rules apply to your shop and ensure that you follow these rules. If you do not do this, you may be following the wrong rules. This mistake could result in a fine and possible jail sentence, depending on the severity of the violation. This chapter explains that various regulations are dependent upon the activities of your shop.

2.1 Classifying for fire and building services:

2.1.1 Oil and water separators: All shops are required to have an oil water separator. The capacity of the separator depends on the size of the area draining into the separator. Contact CTAP or the Indiana Department of Fire and Building Services for more information.

2.1.2 Fire Prevention: As with the building classifications, the regulations covering flammable, combustible and incompatible materials are usually case specific. Please note that this manual addresses only the general requirements of the Indiana Department of Fire and Building Services. Many of these regulations depend upon a number of variables, making the regulations extremely case specific.

To receive specific information on complying with fire safety requirements, contact the Plan Review Division of Fire and Building Services or call CTAP for assistance. For information specific to your shop, send a letter detailing the situation, including a photo, to the Plan Review Division of the Indiana Department of Fire and Building Services. The Department will respond to your letter in writing.

2.1.3 Flammable liquid storage (IOSHA regulation 1910.107 (e): Spray Finishing - The quantity of flammable or combustible liquids kept in the vicinity of spraying operations shall be the minimum required for operations and should ordinarily not exceed a supply of one day or one shift. Bulk storage or containers of flammable or combustible liquids shall be in a separate, constructed building detached from other important buildings or cut off in a standard manner.

Flammable and Combustible material storage (IOSHA 1910.106) - Flammable liquid means any material having a flash point less than 100 degrees F. Container and portable tank storage includes drums or other containers including flammable aerosol cans, not exceeding 60 gallons individually and portable tanks not exceeding 660 gallons individual capacity. Only approved tanks or containers will be used. Fire resistant cabinets will be used to store all flammable or combustible liquids, and will be labeled "FLAMMABLE KEEP FIRE AWAY." Inside storage room will have a 3-foot aisle way clear at all times. Containers over 30 gallons will not be stacked upon the other. Leaking

containers will be removed at once and re-packaged. A storage area will have a spill containment curb at least 6 inches high. Suitable fire control devices (fire extinguishers, sprinkler system) will be provided.

2.1.4 Grounding and bonding: Flammable liquids will not be dispensed into containers unless the nozzle and container are electrically interconnected. Where the metallic floor-plate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of a bond wire, the provisions of this section shall be deemed to have been complied with.

2.1.5 Building code requirements: Your building must meet the Indiana Department of Fire and Building Services' classification requirements, which depend on the type(s) of work being done. If you weld, use any open flame or spray paint, your building must meet the more stringent Class H building code requirements than if your shop simply exchanges parts. Each shop has its own unique description in terms of its size, type of work performed, location of the structure (including surrounding structures), etc. The building requirements that you must follow depend upon all of these unique factors. To obtain information specific to your shop, contact the Plan Review Division of Fire and Building Services and ask to speak with the reviewer who is handling pre-filing review questions.

As with the building classifications, the regulations covering flammable, combustible and incompatible materials are usually case specific. Please note that this manual addresses only the general requirements of the Indiana Department of Fire and Building Services.

To receive specific information on complying with fire safety requirements, contact the Plan Review Division of Fire and Building Services or call CTAP for assistance. For information specific to your shop, send a letter detailing the situation and a photo to the Plan Review Division of the Indiana Department of Fire and Building Services. The Department will respond to your letter in writing.

2.2 Classifying for Department of Transportation (DOT) regulations (49 CFR, SECTION 172.101):

2.2.1 Overview of the requirements: Hazardous Materials and Hazardous Wastes - All collision repair/automotive refinishing shops that ship hazardous waste off-site are subject to DOT regulations, including labeling requirements, selecting proper containers for shipping, and employee training. These requirements are addressed in section 2.2.

Additional DOT regulations apply to shops that use vehicles in the day-to-day operations of their business. These regulations depend on the gross weight of the vehicle (this weight includes the weight of the shop's vehicle plus the weight of any vehicle that it is towing) and the types of materials transported by the shop's vehicle.

2.2.2 Proper shipping names for manifesting waste material: See 49 CFR 172.101 Hazardous Materials Table.

2.3 Determining applicable water regulations:

All shops are subject to industrial wastewater regulations administered by IDEM's OWQ and/or your local wastewater treatment plant. The regulations that you must follow depend on where your bay drains discharge and the contaminants in your shop's wastewater.

2.3.1 Wellhead protection area: Indiana's Wellhead Protection Program is designed to protect ground water drinking supplies from pollution that can threaten health, lives, and community development. The program reduces the potential for contaminants to enter ground water (which supplies approximately 60 percent of Indiana's drinking water) by identifying and managing areas where the ground water supplies specific wells or wellfields.

Note that the Wellhead Protection Program is a new program that has not yet been fully implemented. It is your responsibility to stay up-to-date with new regulations and to comply with them. Visit IDEM's web site at: http://www.IN.gov/idem/owm/dwb/Wellhead/whpp/index2.html or contact your local public water supplier to determine if your shop is located in a wellhead protection area. If you are in a wellhead protection area, you need to be aware of regulations that are being developed in your community as a result of new state regulations (327 IAC 8-4.1)

2.3.2 Floor drains and wastewater management: All shops will have floor drains that are used for drainage from cleaning the floors. All floor drains should be completely closed off and cleaned periodically, or the floor drain should go directly to an oil water separator. If the facility is discharging their water to a surface stream, they will require a National Pollutant Discharge Elimination System (NPDES) permit, before they are allowed to do this. More information can be found at http://www.IN.gov/idem/guides/permit/.

2.4 Determining applicable air regulations (includes CFCs from a freon capturing system for air conditioning systems):

2.4.1 Volatile Organic Compounds (VOC's-326IAC 8-2-2) Surface Coating Emission Limitations (Automobile and light duty truck operations): This section establishes emission limitations for automobile and light duty truck surface coating operations which include all passenger car or passenger car derivatives capable of seating twelve (12) or fewer passengers and any motor vehicle rated at 3,864 kilograms (8,500 pounds) gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles. No owner or operator of an automotive or light duty truck assembly plant, subject to this section, may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds from the application, flash-off, and curing of prime and topcoat coatings on automobile and light duty truck bodies, hoods, fenders, cargo boxes, doors and frill opening panels to exceed:

1). 0.23 Kg's/Ltr. of coating (1.9 pounds per gallon), excluding water, delivered to the applicator from prime application, flash-off area and oven operations.
2). 0.34 Kg's/Ltr. of coating (2.8 pounds per gallon) excluding water, delivered to the applicator from topcoat application, flash-off area and oven operations.
3). 0.58 Kg's/Ltr. of coating (4.8 pounds per gallon) excluding water, delivered to the applicator from final repair application, flash-off area and oven operations.

Automobile Refinishing Rule 10 (326 IAC 8-10-1): This rule applies to any person who sells, offers for sale, or manufacturers for sale, in Clark, Floyd, Lake or Porter counties refinishing coatings or owns, leases, operates, or controls a facility that refinishes motor vehicles or mobile equipment in Clark, Floyd, Lake or Porter counties.
Automobile refinishing means refinishing operations for after market motor vehicles or mobile equipment performed in auto body and repair ships, production paint shops, new car dealer repair and paint shops, fleet operation repair and paint shops, and any other facility that coats vehicles under SIC code 7532.

Mobile Equipment means any equipment which may be driven or drawn on a roadway including, but not limited to, truck bodies, truck trailers, cargo vaults, utility bodies, camper shells, construction equipment, farming equipment, street cleaners, golf carts, forklifts and tow motors.

2.4.2 Hazardous air pollutants (326 IAC 14-1 and 326 IAC 20-1) - Halogenated Solvent Cleaning (for parts washing): Chlorinated solvents (see listing below) that are used in containers with a capacity of 2 gallons or greater are highly regulated by the U.S. EPA. Any non-chlorinated solvent that has a chlorinated solvent content of two percent (2%) or more will also fall under this regulation. As of December 1997, shops using chlorinated solvents in the quantities or percentages described above must follow the regulations under the National Emission Standard for Hazardous Air Pollutants (NESHAP). The NESHAP requires shops to install equipment and implement standardized work practices to reduce the emissions of HAPs. Because the regulatory requirements for this activity are complex, CTAP recommends that shops using chlorinated solvents discontinue this activity by substituting more environmentally-friendly cleaning solutions. As stated in Chapter 1, this manual does not address the chlorinated solvent NESHAP in detail.

<u>Chlorinated solvents:</u>
- chlorobenzene (monochlorobenzene or benzene chloride)
- trichloroethylene (trichloroethane, ethinyl trichloride)
- chlorinated fluorocarbons
- methylene chloride (dichloromethane, methylene dichloride, methylene bichloride)
- tetrachloroethylene (perchloroethylene, ethylene tetrachloride, tetrachlorethylene)
- 1,1,1-trichloroethane (methyl chloroform, chlorothene)

If your shop uses products that contain chlorinated solvents and pretreats parts prior to cleaning them in the solvent sink/parts washer, your used solvent/cleaning solution will automatically be a hazardous waste. This is because chlorinated solvents are listed hazardous wastes. Anytime a waste is contaminated with a listed hazardous waste, the mixture is automatically considered to be a hazardous waste, regardless of the concentration of listed waste. Therefore, check the labels of each of your pretreatment products, and, if possible, discontinue using products that contain chlorinated solvents.

A 1998 air regulation restricts the type of parts washing solvent that may be used in these four counties. The new rules, which have been phased in over an eighteen-month period beginning November 1, 1999, require that solvents have a vapor pressure not to exceed two millimeters of mercury (2.0 mm Hg). Beginning May 1, 2001, solvent vapor pressure must not exceed one millimeter of mercury (1.0 mm Hg). These restrictions apply when solvent is sold to an individual or business in amounts greater than five (5) gallons during any seven, (7) consecutive business days. Some vendors already sell solvents that meet the new vapor pressure limits. Check your MSDS sheet to ensure that your solvent meets these vapor pressure limits. If you are currently using a solvent of this type, your only additional requirement is to keep records of your purchases.

Beginning November 1, 1999, end users of these lower vapor pressure solvents must also keep a record of each purchase, including the following information:

- name and address of the solvent supplier
- date of purchase, the type of solvent
- volume of each unit
- total volume of the solvent; and
- vapor pressure of the solvent.

2.4.2.1 Best available control technology (BACT): (326 IAC 1-2-6) BACT means an emission limitation (including a visible emission standard) or equipment standard based on the maximum degree of reduction of each pollutant subject to regulation under the Clean Air Act and applicable Indiana laws or rules which would be emitted from or which results from any proposed major facility or modification thereto which the commissioner on a case-by-case basis, taking into account energy, environmental and economic impacts and other cost, determines is achievable for such facility or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of BACT result in emissions of any pollutant, which will exceed the emissions allowed by any applicable standard.

Reasonably available control technology (RACT): (326 IAC 1-2-64.1) RACT means control technology that is reasonably available and both technologically and economically feasible.

2.4.3 Potential to emit (PTE): (326 IAC 2-2-1) PTE emissions of any one (1) pollutant which would be emitted from a facility if that facility were operated without the use of pollution control equipment unless such control equipment is (aside from air pollution control requirements) necessary for the facility to produce its normal product or is integral to the normal operation of the facility. Potential emissions shall be based on maximum annual rated capacity 8unless hours of operati0on are limited by enforceable permit conditions. Potential emissions from a facility shall take into account the hours of operation per year and shall be calculated according to federal emission guidelines in AP42 (most recent edition) Compilation of Air Pollution Factors, or calculated based on stack test data or other equivalent data acceptable to the commissioner.

2.4.4 Source specific operating permit (SSOA): (326 IAC 2-9-11) A source may limit its allowable emissions or PTE by complying with the specific restriction and condition listed in this rule. A source electing to comply with this rule shall apply to the commissioner for an SSOA. A source issued an SSOA pursuant to this rule is not subject to 326 IAC 2-1-4 unless otherwise required by state, federal, or local law. A source issued an SSOA pursuant to this rule is not subject to 326 IAC 2-1-3 or 326 IAC 7 provided the SSOA limits the source's allowable emissions or PTE to emit below the applicability thresholds for 326 IAC 2-1-3 or 326 IAC 2-7.

2.4.5 Fugitive dust from unpaved parking lots: (326 IAC 6-4-1)-If your shop has unpaved parking lots, you must prevent the dust associated with these lots from blowing off of your property. Under no circumstance should you apply used oil as a dust suppressant.

2.4.6 Motor vehicle tampering (catalytic converters): The 1970 Clean Air Act prompted the development of catalytic converters, which reduce harmful vehicle emissions by as much as 90 percent. Catalytic converters cause a chemical reaction in the exhaust gases while they are within the emissions system, changing harmful emissions into relatively benign emissions. Tampering with emission control devices (such as catalytic converters, exhaust gas re-circulation valves, air pumps, etc.) is illegal. This anti-tampering law applies to individuals as well as to businesses. Individuals may be fined as much as $2,500 for each vehicle tampered with, and businesses are subject to fines of up to $25,000. Note that businesses that sell used vehicles must ensure that the vehicle is equipped with all emissions control devices that were originally installed by the manufacturer.

To ensure that shops are in compliance with the anti-tampering law, you must follow specific procedures when working with catalytic converters, including ensuring that proper replacement parts are used and that all required paper work is completed and kept on file. A detailed listing of these procedures follows.

Management responsibilities: As the shop manager or owner, you can ensure your shops compliance with IDEM's regulations by adhering to the following management practices. Also listed are suggested practices that you should follow in order to ease your regulatory requirements and improve the environmental health of your shop.

You must:

- Not tamper with catalytic converters or any part of the vehicles emissions control equipment. Tampering includes activities such as:
  - ✓ Removing or making the control emissions inoperable.
  - ✓ Adjusting control emissions so that they no longer meet the manufacturers.
  - ✓ Specification installing: a replacement part that is not specified for use in the vehicle or is not equally effective in reducing emissions as the specified replacement part, and
  - ✓ Adding a part that was not originally certified on the car.
- Not rent, lease, sell, or transfer a vehicle that has been subject to tampering. For information regarding the required components of a particular vehicles emission control system, contact OAQ or CTAP.
- Not operate a vehicle with knowledge that the vehicle has been subject to tampering.
- Install an original equipment catalytic converter unless the vehicle is beyond its emissions warranty. In this case, an after-market catalytic converter may be installed.
- Install the same type of converter as the original (i.e., oxidation, three-way, or three-way plus.)
- Install the proper converter for the vehicle as specified by the converter manufacturer or a converter that is equally effective in reducing emissions.
- Install the converter in the same location as the original.
- Complete the registration card accompanying the new unit to be installed (or use the example form printed in the manufacturer's catalog.) Both the installer and the customer must sign the card/form, which is to be given to the owner of the vehicle.
- Mark the old converter with the number on the card/form, and keep the old converter for a minimum of 15 days (in case EPA or IDEM wishes to inspect the part), and the paperwork for a minimum of 2 years. (Note that EPA only requires you to keep the paperwork for 6 months, but IDEM requires that you keep it for 2 years.)
- Ensure that the invoice for replacement includes the customer's name, address, the vehicles' make, year, mileage, and reason for replacement of the catalytic converter.

You should:

- Always refer to the catalytic converter manufacturer application catalog to ensure that the proper replacement part is installed.
- Send old catalytic converters to scrap metal recycling companies. Catalytic converters contain precious metals such as platinum, palladium, and rhodium.
- Inform your customer that the vehicle was either illegally sold to him/her or that your customer has violated the anti-tampering law by altering the converter if your customers vehicle does not have a catalytic converter or has an altered converter.
- Inform your customer that he/she is subject to a fine of $2,500 if a customer has altered the converter or any part of the emissions control system.
- Inform a customer that has purchased a vehicle without a catalytic converter to call OAQ at 317/232-8419 or 800/451-6027, press 0 and request ext. 2-8419. OAQ will then investigate citizen complaint regarding vehicle tampering.

The Indiana Department of Labor is responsible for enforcing IOSHA regulations in the state of Indiana. The Bureau of Safety Education and Training (BuSET) is a division of the Department of Labor that provides assistance to businesses through presentations, training programs, written guidance, and site visits.

You must:

- Have a written Hazard Communication Program, a written Lockout/Tagout Program, and must comply with all applicable IOSHA General Industry Standards, including providing personal protective equipment to employees who may potentially be exposed to hazards.
- Comply with IOSHA 300 and 301 recordkeeping responsibilities (10 employees or more only). IOSHA 300 logs must be posted during the month of February. Sample 300 and 301 logs are found in the attachment.
- Have a written Emergency Action Plan (10 employees or more only). Shops with 10 or fewer employees are not required to have a written Emergency Action Plan, but must verbally communicate the plans to employees. These shops are also exempt from IOSHA 301 and 300 recordkeeping responsibilities. Note that the Indiana Department of Labor may request that you keep certain records as part of a survey that they conduct. If so, you are required to comply.

When tallying your employees, you must:

- Include everyone in the entire company (if you have more than one vehicle maintenance shop, count the employees in both/all shops)
- Count full-time, part-time, and seasonal employees toward your total number of employees.
- Comply (11 or more employees for at least one day during the calendar year) with IOSHA 301 and 300 recordkeeping responsibilities and have a written emergency action plan.

2.5 IOSHA regulations and applicable sub-parts:

Chapter 5 contains information regarding the training, recordkeeping and reporting requirements for each of the written IOSHA regulations you must follow. To assist you in writing your own plans, an example of each of the following is provided in the as attachments:

- Emergency Action Plan
- The Hazard Communication Program
- Lockout/Tagout Program
- Personal Protective Equipment

Call BuSET directly, 317/232-2688, to get a copies of these programs sent to you.

You must post the following:

- IOSHA's Job Safety and Health Protection poster (IOSHA 2203) in a prominent location within the workplace (note that this poster is also referred to as the IOSHA Rights and Responsibilities poster). You may obtain a copy of this poster

by contacting the Indiana Department of Labor, IOSHA Compliance Division at 317/232-6942.

- NO SMOKING signs in areas where flammable or combustible materials are used or stored. [Fire and Building Services]
- State Minimum Wage poster. Required for businesses with an annual gross income of less than $500,000. You may obtain a copy of this poster by contacting the Department of Labor, Employment Standards Division at 317/232-2680.
- Worker's Compensation Notice. Required for businesses that are subject to the Worker's Compensation Act. You may obtain a copy of this poster by contacting the Worker's Compensation Board at 317/232-3808.
- Child Labor poster. Required for all businesses that employ minors from ages 14 through 17. Available from the Indiana Department of Labor, Bureau of Child Labor at 317/232-2675.
- Equal Employment Opportunity poster. Required for businesses with 15 or more employees. Available from the Equal Employment Opportunity Commission at 317/226-7212.
- Family Leave Act poster. Required for all businesses with 50 or more employees. Available from the U.S. Department of Labor, Wage and Hour Division at 317/226-6801.
- Federal Minimum Wage and Polygraph Act posters. Required for all businesses with an annual gross income of more than $500,000. Available from the U.S. Department of Labor, Wage and Hour Division at 317/226-6801.
- IOSHA 300 log summary. Post this log in February of each year, unless your shop has 10 or fewer employees (see Section 5.4 for more information.)

You must:

Provide personal protective equipment. Depending upon the equipment and materials used in your shop, you must follow all applicable requirements listed in the Personal Protective Equipment Section 1910.132 of the 29 CFR PART 1910 (for collision repair/automotive refinishing shops), including, but not limited to the following:

- Provide and maintain goggles, chemical resistant gloves and aprons, face shields, or other equipment as appropriate for the chemicals you have on site. Consult the Material Safety Data Sheet (MSDS) for each chemical to determine required protective equipment. (See the Hazard Communication section of this manual.)
- Provide and require face shields for welding, cutting, or grinding operations. (See the sections on Grinding and Welding at 2.5.13-welding cutting, brazing.)
- Keep all personal protective equipment clean, readily available, and in good operating condition.
- Provide an eye wash station or emergency shower in areas where corrosive chemicals will be used.
- Provide ear protection if noise levels are at 85 db/hr. for 8 hours or more.
- Train employees in the proper selection, use and maintenance of personal protective equipment.

2.5.1 Spray booth regulations (1910.107(b)(1)): - Spray Finishing using flammable and combustible materials. Spray booths shall be substantially constructed of steel, securely and rigidly supported, or of concrete or masonry except that aluminum or other substantial noncombustible material may be used for intermittent or low volume spraying. Spray booths shall be designed to sweep air currents toward the exhaust outlet. The interior of spray booths shall be smooth, and the floors, shall be covered with non-combustible material of such character as to facilitate the safe cleaning and removal of residues.

Visible Gauges and Audible alarms or pressure-activated devices will be installed to insure or indicate that the required air velocity is maintained. Filter rolls shall be inspected to insure proper replacement of filter media. Filters can be put into a container with water and disposed of at the end of the shift or day.

All spray booths shall have automatic sprinklers, and be separated from other operations by 3 feet. All spraying areas shall be provided with mechanical ventilation adequate to remove flammable vapors, mists, or powders, so life is not endangered. All spray booth regulations apply under this section.

Grounded and Bonded containers

Storage area

2.5.2Flammable and combustible materials handling and storage: (IOSHA 1910.106): Flammable liquid means any material having a flash point less than 100 degrees F. Container and portable tank storage includes drums or other containers including flammable aerosol cans, not exceeding 60 gallons individually and portable tanks not exceeding 660 gallons individual capacity. Only approved tanks or containers will be used. Fires resistant cabinets will be used to store all flammable or combustible liquids, and will be labeled "FLAMMABLE KEEP FIRE AWAY." Inside storage room will have a 3-foot aisle way clear at all times. Containers over 30 gallons will not be stacked upon the other. Leaking containers will be removed at once and re-packaged. The storage area will have a spill containment curb at least 6 inches high. Suitable fire control devices (fire extinguishers, sprinkler system) will be provided.

2.5.3 Walking and working surfaces (wet and slippery floors): All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage shall be maintained and false floors, platforms, mats, or other dry standing places should be provided where practicable. From every wall opening where there is a drop of 4 feet, it

shall be guarded by a rail, roller, picket fence, half door, or equivalent barrier. A toe board must also be provided if there is a possibility of falling objects. Where there is a possibility of an open sided floor or platform 4 feet or more above adjacent floor or ground level, it shall be guarded by a standard railing on all open sides except where there is an entrance to a ramp, stairway, or fixed ladder.

2.5.4 Abrasive blasting (1910.94): For employees who use respirators required by this section, the employer must implement a respiratory protection program in accordance with 29CFR 1910.134. This section contains all of the regulations that pertain to blasting, grinding, polishing and buffing.

2.5.5 Hazardous materials (1910.101): This section contains all of the regulations that pertain to:

- Compressed gases such as acetylene, oxygen, flammable and combustible liquids,
- Container and portable tank storage requirements
- Fire control
- Grounding
- Spray booth operations
- Automobile undercoating in garages
- Dip Tanks where flammable liquids are used
- Storage and handling of liquified
- Petroleum gas such as "LPG" gas tanks.

2.5.6 Lockout/Tagout-The control of hazardous energy (1910.147): This standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or the release of stored energy, could cause injury to employees. This standard establishes minimum performance requirements for the control of such hazardous energy. This does not include a cord-plug attachment.

2.5.7 Fire protection (1910.155): This section contains the very important information that requires the employer to provide fire extinguishers and fire extinguisher training. Fire extinguishers are to be inspected annually and then once per month and documented. All employees that are expected to use the fire extinguishers are to be trained initially and then annually thereafter. This training also needs to be documented. All sprinkler systems are to be inspected annually and pressure tested. This program is to be a part of your Emergency Action Plan.

2.5.8 Material handling (servicing multi and single piece rim wheels (tire changing, and forklifts, tow motors, etc.) 1910.176: This section covers the requirements for the operation, maintenance and training requirements for servicing multi –piece and single rim wheels (changing tires). It covers large vehicles such as trucks, tractors, trailers, buses and off-road machines. It does not apply to the servicing of rim wheels used on automobiles,

pick-up trucks, or vans.

Powered industrial trucks: (forklifts, hand-motorized trucks, or any that are "powered", is covered in section 1910.178. These could be gas powered, electric or "LP" gas powered. Adequate ventilation has to be supplied in the areas of battery storage, due to controlling noxious gases and fumes. Where batteries are stored there is to be a quick drench eye wash station in this area for corrosive materials. Operator training- Only trained and authorized operators shall be permitted to operate a powered industrial truck. Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made daily, and it must be documented by type (gas, electric, propane, or by number 1,2,3,etc.)

Cranes and hoists: Floor operated cranes, and a hoist (an apparatus which may be a part of a crane, exerting a force for lifting or lowering), is usually the type that are used in this type of industry. All wiring and electrical will comply with subpart S of the electrical standards of 1910 regulations. Inspection procedures, frequent and periodic, are required to be done and to be documented at intervals that are specified in 1910.179.

You must (for hoists and cranes):

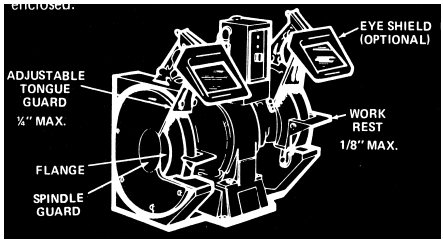
- Ensure that the rated load is marked and is visible to the operator.
- Ensure that the hoist or crane is able to hold up to 125% of its rated load.
- Not carry loads over people.
- Perform frequent and periodic inspection per the regulations.

You must (for lifts):

- Have a locking mechanism in place anytime someone is under the lift. Lifts that have a locking mechanism only when the lift is fully extended must only be used in the fully extended position.
- Ensure that lifts not having a built-in locking mechanism are secured with an adjustable jack capable of supporting three times the lifts rated capacity. Secure the lift, not the car.
- Ensure lifts are not leaking. Call IDEM's Spill 24-Hour Emergency Hotline to report leaks and spills.

2.5.9 Machine guarding 1910.211: Point of operation means that point of which cutting, shaping, boring, or forming is accomplished upon the stock. Pinch Point means any point other than the point of operation at which it is possible for a part of the body to be caught between the moving parts of a press or auxiliary equipment, or between moving and stationary parts of a press or auxiliary equipment or between the material and moving part or parts of the press or auxiliary equipment. One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding would be barrier guards, two-handed tripping devices, electronic safety devices, etc. Guard shall be affixed to the machine where possible and

secured elsewhere if for any reason attachment to the machine is not possible. The guard shall be such that it does not offer and accident hazard in itself.



2.5.9.1 Abrasive wheel machinery (1910.215): This section addresses abrasive wheels are only to be used with safety guards covering the spindle end, nut and flange projections. The work rests shall be adjusted closely to the wheel with a maximum opening of one-eighth inch (1/8"), to prevent the work from being jammed between the wheel and the rest, which may cause wheel breakage.

2.5.10 Hazard Communication (1910.1200): The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated and that information concerning their hazard is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, other forms of warning, material safety data sheets and documented employee training.

Training: Training is to be done initially upon hire, and annually thereafter. Material Safety data sheets are to be provided to employees while they are in their work areas, but can also be kept electronically. Employee information and training is to include what personal protective equipment will be required to work safely with the chemicals, in the workplace.

2.5.11 Medical and first aid (1910.151): The employer shall ensure the ready availability of medical personnel for advice and consultation on matters of plant health. In the absence of an infirmary, clinic or hospital in near proximity to the workplace (3-minutes is the time required to be within the distance of a hospital for emergency care unit) which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. First aid supplies approved by the physician shall be readily available. Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

2.5.12 Hand and portable powered tools (1910.241): Each employer shall be responsible for the safe condition of tools and equipment used by employees, including tools and equipment that may be furnished by employees. Compressed air for cleaning will be at 30 p.s.i. at all times. Portable powered tools shall also have the same type of protective guarding that is required for employee safety. This includes saws, pneumatic tools, portable grinders, saber, scroll and jigsaws, or any rotating piece of equipment.

2.5.12.1 General machinery and tool requirements:

You must:

- Use only approved hand tools that are in good condition.
- Ensure that all cord-operated tools are grounded or are the approved double insulated type.

- Ensure that all portable fans have a protective guard with half inch or smaller openings.
- Ensure that employees are trained in the proper operation of each piece of equipment.
- Ensure that the machine operator can safely reach all controls from the machine's point of operation and that the operator can cut off the power to the machine without leaving his/her position at the point of operation. The point of operation is the area of the machine where material is positioned and work is being performed.
- Ensure that all equipment capable of storing energy is locked out and tagged during servicing and repairs. (See the Lockout/Tagout section of this manual.)
- Be aware that ground fault circuit interrupters (GFCI) are required for new outlets, and in some instances, on existing outlets. Contact BuSET or CTAP for more information.
- Ensure that the machine's "pinch points" (also known as "nip points") are guarded with a protective cover. A pinch point is any point, other than the point of operation of the machine, where the machine's moving parts may catch a part of the body.
- Follow appropriate regulations for welding operations (see Welding section in Chapter 2.5.13.)
- Follow appropriate regulations for grinding operations (see Grinding section in Chapter 2.5.9.1.)

You must (for air compressors and compressed air):

- Post signs warning of the automatic start-up feature of air compressors.
- Not use compressed air to clean off clothes or body.
- Not use compressed air for cleaning unless the pressure is reduced below 30 psi and proper chip guards are in place.
- Not use compressed air when working on brake jobs, unless within a self-enclosed vacuum system.
- Regularly drain moisture from the lowest point of pressure in the line.

2.5.13 Welding, cutting and brazing (1910.251): Fire prevention and protection is the basic precaution to take in this area. Careful about working around flammable materials, in duct work, on certain types of floors. Suitable fire extinguishing equipment will be located and maintained in a state of readiness for instant use. Proper ventilation is to be supplied at all time. Personal protective clothing and eyewear, according to what is being welded, is to be provided to each affected person. Respirators are to be supplied if necessary. Fire curtains for the protection of the operators of nearby equipment, fire-resistant curtains or suitable shields shall be set up around the resistance welding machines, or portable welding machines, and in such a manner that the operators movements are not hampered.

NOTE: Storage of acetylene and oxygen: Store acetylene cylinders with valve ends up. DO NOT STORE oxygen cylinders near highly combustible

material, such as oil and grease, paint and solvents. Oxygen and acetylene cylinders are to be stored at least 20 feet apart or have a barrier at least 5 feet high with a one half hour burn rate.

2.6 Automobile undercoating in garages (1910.107 (k)): Automobile undercoating spray operations in garages, conducted in areas having adequate natural or mechanical ventilation, are exempt from the requirement pertaining to spray finishing operations, when using undercoating materials not more hazardous that kerosene or undercoating materials using only solvents listed as having a flash point in excess of 100 degrees F. Undercoating spray operations not conforming to these provisions are subject to all requirements pertaining to spray finishing operations 1910.107.

2.7 Recycling scrap metal parts: (Base materials - hazards and impacts) There are no hazards and/or impacts associated with the base materials found in metal parts. Note that some parts are coated with lead or chromium, and that a thin layer of these metals may come off when washed, potentially contaminating your solvent. See the Aqueous-Based or Petroleum-Based Solvent sections in Chapter 4 for more information. Also note that catalytic converters contain precious metals and should be recycled. See the Catalytic Converter section in Chapter 2.4.7 for more information.

Additives and contaminants – hazards and impacts: There are no significant additives or contaminants associated with used parts that are drained of any liquids they may contain.

There are no regulations for used parts, provided they do not contain free liquids (liquids that will readily pour.) IDEM, however, prefers that you manage your used parts as follows:

You should:
Drain the part of any residual fluid. Combine the fluid with similar fluids collected elsewhere in your shop and manage accordingly.

- When possible, return used parts to the wholesaler or manufacturer for rebuilding. The wholesaler or manufacturer may have procedures in place to accept used parts for rebuilding.
- Send it to a scrap metal recycler along with your empty aerosol cans and other recyclable metals if the part manufacturer will not accept a used part.

2.7.1 Recycling scrap plastic parts: Plastic parts can be recycled and reused. Check with your local Solid Waste Management District to see if they have someone in your area that takes this kind of material before you place it for final disposal.

2.8 Classifying your shop to determine its hazardous waste generator status: Is your shop a conditionally exempt small quantity generator, A small quantity generator or a large quantity generator of hazardous waste?

Under the Resource Conservation and Recovery Act (RCRA), hazardous waste generators are classified according to how much hazardous waste they generate in a calendar month. Your hazardous waste generator status will determine the rules you must follow to be in compliance with federal waste regulations. As mentioned in Chapter 1, our typical collision repair/automotive refinishing shop is a small quantity generator of hazardous waste. To determine your generator status, evaluate the amount of hazardous waste your shop generates and compare to the following table:

GENERATOR STATUS	HAZARDOUS WASTE GENERATED	HAZARDOUS WASTE STORED ON-SITE
Conditionally Exempt Small Quantity Generator CESQG)	Less than or equal to 220 pounds per month (approximately one half of a 55-gallon drum)	Maximum accumulation of 2,200 pound (approximately four 55-gallon drums)
Small Quantity Generator (SQG)	Between 220 and 2200 pounds per month (approximately one half to four 55-gallon drums)	Maximum accumulation of 13,228 poun (approximately thirty 55-gallon drums) maximum storage time of 180 days*
Large Quantity Generator (LQG)	2200 pounds or more per month (more than four 55-gallon drums)	Maximum storage time of 90 days

*Hazardous waste that is transported more than 200 miles away for recovery, treatment, or disposal can be stored for up to 270 days.

These hazardous waste cutoffs are based on:
1) A calendar month, **not** a rolling average; and
2) The quantity you generate, not the amount you ship off-site for recycling, fuel blending or disposal. The quantity generated includes:
   - The amount that is recycled on site
   - The wastewater removed from your holding tank (if the wastewater is determined to be a hazardous waste), but does not include wastewater discharged to the sanitary sewer. See the Wastewater section in Chapter 4.18.1for more information.

What is Hazardous Waste: To be a hazardous waste, the material under consideration must first be classified as a solid waste. It is important to note that the term "solid" does not refer to the physical state of the waste. Instead, solid waste refers to any material that you will no longer be using for its originally intended purpose or a material that must be reclaimed before it can be reused. Solid waste can be a solid, a liquid, or a contained gas. Not all solid wastes are considered to be hazardous wastes. Hazardous wastes may be one of two types: listed waste or characteristic waste.

The waste is a listed hazardous waste if it appears on one of four lists published in the 40 (CFR) Code of Federal Regulations, part 261.30 Subpart D.

A waste is a characteristic waste if it demonstrates one or more of the following characteristics under 40 CFR part 261.20, Subpart C:

- Ignitable - examples include gasoline, diesel fuel, and some degreasers and solvents.
- Corrosive - examples include battery acid and some condenser cleaners.
- Reactive - examples include sodium azide, which is found in undeployed air bags, and other materials that are unstable, react violently with or form explosive mixtures with water, generate toxic gases or vapors when mixed with water or are capable of detonating or exploding when heated or subject to shock.
- Toxic - wastes that contain high concentrations of heavy metals, such as lead or cadmium, or that contain chlorinated solvents. Examples include used antifreeze, which may contain high concentrations of lead, and used immersion solutions that contain perchloroethylene. If you are uncertain as to whether or not a waste is toxic, you may have the waste tested using the Toxicity Characteristic Leaching Procedure (TCLP) or simply manage it as a hazardous waste.

If properly managed, some of your used products that would otherwise be a hazardous waste may be exempt from most of the hazardous waste regulations (e.g., lead-acid batteries, oil, oil filters, fuel, and fluorescent light tubes.) In order to be exempt from the hazardous waste regulations, you must follow alternative regulations developed by IDEM's Office of Land Quality (OLQ). Examples of alternative regulations include the Used Oil Rule and the Universal Waste Rule.

Wastes that are not exempt from hazardous waste regulations, a hazardous waste determination must be made. A hazardous waste determination may be made by determining if the waste contains a listed waste or if the waste exhibits any of the four characteristics of a hazardous waste (ignitability, corrosivity, reactivity, and toxicity). To make a hazardous waste determination, you may have a representative sample of the waste tested by an appropriate laboratory, or, as the generator of the waste, you may apply your knowledge of the waste to determine if it is hazardous. Applying your own knowledge of the waste is referred to as using generator knowledge of the waste. Generator knowledge may be based upon published or documented waste analysis data that compares the specific process that generated your waste to those processes described in the publication/document. For more information on making a hazardous waste determination, contact CTAP at 800/988-7901.

As you can see, making a hazardous waste determination can be a complicated task. To assist you with this process, CTAP has compiled the following table, listing the products commonly used by shops. This table indicates the management options that allow shops to not only make environmentally beneficial management decisions, but also allows them

to avoid making a hazardous waste determination, subsequently managing the waste as a hazardous waste, and counting the waste toward their hazardous waste generator status.

Note that this table may not include all of the hazardous wastes that are generated by your shop. For more information on each of the products listed in the following table, including guidelines for reducing or eliminating the amount of hazardous waste generated, see Chapter 4.

Product/Waste	Management Option	Hazardous Waste?	Counted Toward Gen
Aerosol Cans	Recycled or disposed empty Recycled or disposed (not empty)	No Yes	No Yes
Antifreeze	Recycled Disposed	No Yes	No Yes
Brake and Clutch (asbestos)	Disposed Contaminated	Make a determination Yes	 Yes
Product/Waste	**Management Option**	**Hazardous Waste**	**Counted Toward Gen**
Catalytic Converters	Recycled	No, but subject to air rules	
Fluorescent Light Tubes	Recycled as Universal Waste Disposed	No Yes	No Yes
Fuel	Used for intended purpose	No	No
Refrigerants (MVAC)	Recycled (not contaminated) Disposed (contaminated)	No Yes	No Yes
Solvents (aqueous-based)	Disposed	Yes	Yes
Solvents (petroleum-based)	Recycled/Reused Recycled/Disposed	No Yes	No Yes
Wipes	Recycled (under used oil rule, oil only Recycled Laundered (reusable wipes that have not been used to clean up HW spills)	No Yes No	No Yes No

Changing your hazardous waste classification: Many collision repair and automotive refinishing shops will alternate between being classified as a CESQG and an SQG. If you generate enough hazardous waste in one month to move to the next classification (for instance, from CESQG to SQG), you must comply with the much stricter standards of the larger class during the month(s) that you generate this increased volume of waste. These stricter standards include additional hazardous waste requirements as well as training requirements and emergency planning. Your goal as a small business should be to fit into the CESQG category, but to act as an SQG to ensure that your hazardous wastes are properly managed and to protect yourself from future liability associated with these wastes. Acting as an SQG will also prepare your shop to meet the stricter SQG requirements in the event that the shop generates enough hazardous waste to move to this classification. If your generator status drops from an SQG to a CESQG, you must continue following the SQG regulations until you notify IDEM in writing that your generator status has changed.

If you find that you're in a situation that moves you from the SQG to the large quantity generator (LQG) regulations, you will be required to meet additional requirements, including, but not limited to, conduct training and developing written plans. If desired,

you may contract this work to an outside company. For more information, call CTAP at 800/988-7901.

EPA identification number: Small Quantity Generators (and LQGs) must obtain an EPA identification number. EPA and states use these 12-character numbers to monitor and track hazardous waste activities. You will need to use your EPA ID when you manifest hazardous waste off site. If your shop is an SQG (or moves into the SQG classification), and does not have an EPA identification number, you should contact IDEM's Office of Land Quality (OLQ) at 317/308-3016 or toll-free at 800/451-6027, press 0 and request ext. 308-3016 to request a copy of EPA application form 8700-12 Notification of Regulated Waste Activity.

CESQGs and hazardous waste management: If you are a CESQG, IDEM does not prohibit you from discarding your **non-liquid** hazardous waste as part of your regular trash. However, you should **not** throw hazardous waste in the regular trash, because:

- Landfills are prohibited from accepting liquid waste(s).
- Your hazardous waste is subject to your haulers and the disposal facility's approval.
- Disposal of hazardous waste may violate the contract with your hauler and/or disposal facility.
- Even though your trash is taken to a site that is permitted to accept solid waste, you remain legally liable for it. If a hazardous material ends up in the soil or ground water, you can be held financially responsible for helping with the clean up. If you throw hazardous waste in with your regular trash, you cannot be certain of its final destination.

There are health hazards associated with these wastes, and you do not want to harm anyone in your community. Keep in mind that children occasionally play around dumpsters and that children and trash collectors may be exposed to your hazardous wastes. CESQGs that wish to be excluded from full hazardous waste regulations must comply with the requirements summarized in table on page 17.

2.9 Classifying your shop to determine waste generation of asbestos and oil debris: For asbestos containing material and oily sludge contaminated solids generated by vehicle maintenance shops, they are regulated as either a solid or hazardous waste. For information on these rules, visit IDEM's web page at www.IN.gov/idem/land or contact IDEM's Office of Land Quality,or CTAP.

The following types of wastes are typically generated by collision repair/automotive refinishing shops:

- **Asbestos-containing material (such as dust from brake repair operations):** For asbestos containing materials the generator should contact the disposal facility and/or transporter, as a solid waste with special handling provisions. The asbestos could be"friable". Friable asbestos is defined as a material that contains more than 1% asbestos that, when dry, can be crumbled or reduced to powder by hand pressure. Asbestos-containing brake pads, clutch pads, and gaskets that are in good condition (non-friable) are not regulated and may be disposed with your

regular trash.

- **Petroleum-contaminated material:** This includes: sludge from the clean-out of used oil storage tanks. Soil and/or absorbent materials contaminated with petroleum-based products that do not contain polychlorinated biphenyls (PCBs). Examples of such petroleum-based products include oils, hydraulic fluid, kerosene, diesel fuel, and gasoline. A hazardous waste determination must be made on your wastes. Any waste that is determined to be a hazardous waste must be managed under the more stringent hazardous waste regulations.

If you are subject to waste rules, you must ship your waste to a municipal solid waste landfill that has been designated to accept this type of waste. If you wish to send your petroleum-contaminated waste to a landfill that is not on this list, you must obtain approval from the landfill and IDEM. Contact IDEM's Office of Land Quality, or CTAP for assistance.

Note: You may manage the sludge from your used oil storage tank and some types of oil-contaminated absorbent materials under the Used Oil Rule rather than managing them as a hazardous waste. Following the Used Oil Rule will simplify your regulatory requirements. See the Oil section in Chapter 4 for more information on managing your used oil, wipes, and other absorbent materials under the Used Oil Rule. Used oil is non-regulated under solid or hazardous waste oil regulations beneficially into another product.

2.10 Storing and decontamination: washing and cleaning: There are specific regulations pertaining to the zoning of shops that do certain types of work in the area of collision repair and automotive refinishing that may apply to your shop.

Keep in mind that each employee that works in this area could also become contaminated by blood or blood by-products. Be sure to train your employees in the area of personal protective equipment requirements (gloves, goggles, etc.) and the bloodborne pathogen requirements, for red bag material for disposal. See the bloodborne pathogen program in section 4.16.

2.11 Racks-straightening: The part of the part of the regulations that cover this type of equipment is regulated under IOSHA standard that is called a **"General Duty Clause"**, which states that, "each employer shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing, or are likely to cause, death or serious physical harm to this employees, and shall comply with occupation safety and health standards promulgated under the Act."